

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Previously Presented) A mobile terminal, comprising:

a codec configured to perform a converting operation between analog voice data and digital voice data;

a camera module connected to a camera installed within the mobile terminal, the camera module configured to perform a converting operation between analog image data and digital image data;

a direction sensor configured to detect compass orientation direction data associated with an image located in a photographing direction of the camera;

a voice/image communication apparatus configured to multiplex or demultiplex the direction data and at least one of converted voice or image data;

a display module configured to display the image from demultiplexed image data and the direction data from the voice/image communication apparatus, wherein the direction data is displayed in the image by the display module;

a speaker configured to output voice data demultiplexed by the voice/image communication apparatus; and

a control unit configured to control the codec, camera module, voice/image communication apparatus, and display module, wherein the control unit checks whether a direction displaying mode has been selected and controls the display module to display the demultiplexed image data and the direction data simultaneously when the direction display mode is selected.

2. (Canceled)

3. (Previously Presented) The mobile terminal of claim 1, wherein the voice/image communication apparatus comprises:

a multiplexing processing unit configured to multiplex or demultiplex direction data and at least one of converted voice or image data to display multiplexed image and direction data on the display module;

a voice encoding processing unit configured to encode voice data input from the codec or convert voice data transmitted from the multiplexing processing unit into data for transmitting to a speaker;

an image encoding processing unit configured to encode image data input from the camera module or convert image data transmitted from the multiplexing processing unit into data for displaying on the display module; and

a direction displaying processing unit configured to encode direction data input from the A/D converter or convert direction data transmitted from the multiplexing processing unit into data for displaying on the display module.

4. (Previously Presented) The mobile terminal of claim 3, wherein the direction displaying processing unit calculates a compass orientation direction and encodes the calculated compass orientation direction by formatting the calculated compass orientation direction into a binary value.

5. (Previously Presented) The mobile terminal of claim 3, wherein the direction displaying processing unit displays the direction data in a direction displaying area at one side of a screen of the display module.

6. (Previously Presented) The mobile terminal of claim 3, wherein the direction displaying processing unit displays the direction data as a direction on a screen of the display module.

7. (Previously Presented) The mobile terminal of claim 3, wherein the direction displaying processing unit displays the direction data as a direction on a screen of the display module in the form of a compass.

8. (Previously Presented) The mobile terminal of claim 3, wherein the multiplexing processing unit multiplexes encoded packet data by receiving the data from the voice encoding processing unit, image encoding processing unit, and direction displaying processing unit, and inputs the data to an image frame by forming a flag and header to distinguish the image frame.

9. (Previously Presented) The mobile terminal of claim 3, wherein the multiplexing processing unit is further configured to form a null data set if no data is transmitted thereto.

10. (Previously Presented) A method for displaying image data direction of a mobile terminal, comprising:

receiving image data;

demultiplexing the image data and separating the image data into at least one of image, voice, or compass orientation direction data;

checking the demultiplexed data for a setting of a direction displaying mode from the direction displaying processing unit;

determining a position and a method for displaying the image and compass orientation direction data on the screen of the display from the direction displaying processing unit if the direction displaying mode is set; and

displaying the separated image and compass orientation direction data simultaneously on a screen of a display of the mobile terminal in the determined position and determined method, wherein the compass orientation data is displayed within the image on the screen of the display, the compass orientation direction data being associated with a direction of the image, the image being located in a photographing direction of a camera.

11. (Previously Presented) The method of claim 10, wherein the multiplexing processing unit checks the received image data and forms a null data set if the image data is not separable.

12. (Previously Presented) The method of claim 10, wherein displaying separated image and compass orientation direction data further comprises detecting the demultiplexed image data and compass orientation direction data and transmitting said detected data to an image encoding processing unit and the direction displaying processing unit, respectively.

13. (Previously Presented) The method of claim 10, wherein image data read from a voice/image communication apparatus is displayed on the screen of the display if the direction displaying mode is not set in the direction displaying processing unit.

14. (Previously Presented) The method of claim 10, wherein the direction displaying processing unit displays the compass orientation direction data in a direction displaying area at one side of the screen of the display.

15. (Previously Presented) The method of claim 10, wherein the direction displaying processing unit displays the compass orientation direction data as a direction on the screen of the display.

16. (Previously Presented) The method of claim 10, wherein the direction displaying processing unit displays the compass orientation direction data as a direction on the screen of the display in the form of a compass.

17. (Previously Presented) The method of claim 10, wherein the displaying comprises a transmitted stop image.

18. (Previously Presented) The method of claim 10, further comprising displaying time and date information with the image and compass orientation direction data on the screen of the display.

19-25. (Cancelled)

26. (Previously Presented) The mobile terminal of claim 1, further comprising a transceiver configured to transmit and receive multiplexed data to and from an external device.

27. (Previously Presented) The mobile terminal of claim 1, wherein the control unit is configured to synthesize the demultiplexed image data and direction data.

28. (Previously Presented) The mobile terminal of claim 1, wherein the image data comprises a moving picture.

29. (Previously Presented) A mobile terminal, comprising:

- a display;
- a receiving unit configured to receive multiplexed data including image data and compass orientation direction data associated with the image data;
- a demultiplexing unit configured to demultiplex the multiplexed data into image data and compass orientation direction data;
- a checking unit configured to check whether a direction displaying mode is set;

and

- a controller configured to control the display so as to display the image data and the compass orientation direction data simultaneously when the checking unit verifies that the direction display mode is set.

30. (Previously Presented) The mobile terminal of claim 29, wherein the demultiplexed image data and compass orientation direction data are synthesized by the controller and displayed on the display.

31. (Previously Presented) The mobile terminal of claim 30, wherein the image data comprises moving picture data.

32. (New) A method of displaying direction information on a screen of a camera phone, the method comprising:

collecting data related to an object being photographed;

demultiplexing the collected data and separating image data related to the appearance of the object being photographed from compass orientation data of the object being photographed;

displaying a representation of the object being photographed on the screen of the camera phone based on the collected and separated image data; and

displaying the compass orientation data of the object being photographed on the screen of the camera phone, superimposed on the representation of the object being photographed displayed on the screen.